



SUPPLY CHAIN ANALYTICS

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PRE-REQUISITES : Basic knowledge of Operations management will be desirable.

INTENDED AUDIENCE : It is an elective course for PG students and working professionals.

INDUSTRIES APPLICABLE TO : Supply Chain Analytics is a growing field. Some of the companies already in the business of Supply Chain Analytics and may recognize the online course can be IBM, Mu-Sigma, Genpact, Accenture, Capgemini, Wipro, Deloitte.

COURSE OUTLINE :

In present time of intense global competition, customers are demanding more and more variety, with better quality and service at lowest cost. This means that in order to be successful, firms need to develop supply chain strategies and logistical capabilities that serve the needs of their customers whilst maximizing overall profitability. All supply chains, in order to function properly, must focus on the huge opportunity that exists in their analytics.

Specific objectives:

On successfully completing this course you will be able to:

- Understand the importance of the basics of Business Analytics and Optimization
- Understand the importance of the basics of Supply Chain Analytics and Optimization
- Analyze the level of uncertainty associated with the supply of products and services to targeted customer segments and justify the choice of a supply chain strategy and its fit with competitive strategy.
- Explain the role and applications of Descriptive Analytics in a Supply Chain
- Explain the role and applications of Predictive Analytics in a Supply Chain
- Explain the role and applications of Prescriptive Analytics in a Supply Chain
- Learn the basics of Modeling through R Language

ABOUT INSTRUCTOR :

Prof. Rajat Agrawal is a member of faculty (Associate Professor) at Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee. He is associate faculty member at Center of Excellence for Disaster mitigation and Management and Center of Excellence for Transportation Management, IIT Roorkee. He administers various initiatives of IIT Roorkee in the field of IPR, incubation and entrepreneurship in different capacities. Dr. Rajat is a visiting fellow to Copenhagen Business School, Copenhagen, Denmark. His area of interest is Production and Operations Management including Supply Chain Management, Manufacturing Strategy and World Class Manufacturing.

COURSE PLAN :

Week 1: Context of today's supply chains (SC) analytics

Week 2: Supply chain analytics

Week 3: Foundation of Business Analytics (BA)

Week 4: A CASE STUDY OF SUPPLY CHAIN ANALYTICS

Week 5: Foundation of PRESCRIPTIVE ANALYTICS IN NETWORK PLANNING IN A SUPPLY CHAIN

Week 6: Foundation of Modeling Coordination Decisions in SUPPLY CHAIN MANAGEMENT

Week 7: Foundation of PERFORMANCE MANAGEMENT IN SUPPLY CHAIN MANAGEMENT

Week 8: IT ENABLEMENT OF SUPPLY CHAINS